

excitation state of the exciting coils; and

a detecting coil provided separately from the exciting coils so as to generate an induction voltage according to rotation of the rotor,

wherein the exciting coils are provided along a peripheral surface of the rotor, and the detecting coil is provided at a center of a longest peripheral surface between adjoining exciting coils.

3. (Twice Amended) A driving apparatus, comprising:

a stepping motor having:

exciting coils;

a rotor providing with a plurality of N/S poles so as to rotate following a change of an excitation state of the exciting coils; and

B²
a detecting coil provided separately from the exciting coils so as to generate induction voltage according to rotation of the rotor;

a driven member linked with the rotor;

a stopper for mechanically stopping the driven member at a predetermined position;

a first exciting means to normally or reversely rotate the rotor by controlling the excitation state of the exciting coils;

a second exciting means for reversing the rotor in a direction of making the driven member move toward the predetermined position by controlling the excitation state of the exciting coils;

a position detecting means for detecting the driven member having abutted the stopper and stopped at the predetermined position on a basis of induction voltage generated in the detecting coil

during control by the second exciting means; and

B² a controlling means for stopping the first exciting means controlling and starting the second exciting means controlling when an instruction signal is inputted, and for starting the first exciting means controlling and stopping the second exciting means controlling when the position detecting means detects the driven member having stopped at the predetermined position,

wherein the exciting coils are provided along a peripheral surface of the rotor, and the detecting coil is provided at a center of a longest peripheral surface between adjoining exciting coils.